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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WEISKOPF, MARIE

ART UNIT PAPER NUMBER

3661

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/808,072	FERMAN, MARTIN A.	
	Examiner	Art Unit	
	Marie A. Weiskopf	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-10, 13-21 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-10, 13-21 and 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 10-12, filed 1/12/2006, with respect to the rejection(s) of claim(s) 3, 9, 15, 19, and 24 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

Claim Rejections - 35 USC § 103

2. Claims 3, 5, 10, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (US 5,699,056) in view of Meek et al (US 6,121,924.) Yoshida discloses a traffic information system and Meek et al discloses a method and system for providing navigation systems with updated geographic data.

- In regard to claim 3, Yoshida discloses a method of reporting information from a vehicle to a vehicle data collection system comprising:
 - Storing information which defines a geographic region in a vehicle, the geographic region comprising a predetermined array of cells, each cell having a cell position. (See Figure 1A; Column 10, lines 7-14)
 - Telegraphic messages which are sent from the vehicle to the repeater to then be processed by the center. The information is judged as to whether it is in the correct cell and if so, it is then reported to the center. This is, therefore, associating a plurality of cell parameters, and the cell parameters include a reporting interval and a recording

interval which is every few minutes or whenever manual information is entered. (Column 14, lines 55-65)

- Determining a vehicle position relative to the geographic region, wherein if the vehicle is within the geographic region, the vehicle position is correlated to a vehicle cell. (See Figure 16)
- Recording vehicle data in accordance with the recording interval of the vehicle cell. Yoshida does not specifically state that the vehicle data is recorded in accordance with the recording interval, however, it is inherent that this data must be recorded before it is then able to transmit the data to the center.
- Reporting the vehicle data to a vehicle data collection system in accordance with the reporting interval. (See Figure 15)
- Repeating the steps of determining the vehicle position, recording the vehicle data and reporting the vehicle data for a plurality of cycles. (See Figure 15; Column 17, lines 58-62)

Yoshida fails to disclose updating the information which defines the geographic region, however, Meek et al discloses updating the information which defines the geographic region in a database. (Abstract; Column 4, lines 28-62) It would have been obvious to one having ordinary skill in the art at the time of the invention to include updating the geographic region information in order to modify the invention of Yoshida because, as discussed by Meek et al, geographic region information becomes out-of-date with time as with any map and it would be

necessary for the information to be updated in order to be able to provide accurate geographic region information.

- In regard to claim 5, Yoshida discloses the vehicle data comprises at least one datum from the group consisting of a vehicle speed, a vehicle heading, the vehicle position, a vehicle elevation and an ambient temperature (Column 10, line 32, line 60-61; Column 28, lines 48-50).
- In regard to claim 10, Yoshida, as discussed previously, discusses the geographic region comprising a plurality of geographic regions (Column 10, lines 7-21), however, Yoshida fails to disclose being able to selectively enable or disable the method for each geographic region. It would have been obvious to one having ordinary skill in the art at the time of the invention to just turn off repeaters in certain geographic areas where traffic data is not wanted in order to decide what information should be reported to the center.
- In regard to claim 24, Yoshida discloses a system for communicating vehicle data between a vehicle and a vehicle data collection system comprising:
 - A vehicle that is adapted to record and report vehicle data as a function of a vehicle position, the vehicle having a vehicle data storage system to record vehicle data and a vehicle communication system to report the vehicle data that is adapted for wireless communication of the vehicle data. (Column 2, lines 51-60)

- A vehicle data collection system that is adapted to receive and store vehicle data, the system adapted to receive wireless communication of the vehicle data from the vehicle. (Column 3, lines 38-47)
- Wherein the vehicle is adapted to record and report vehicle data as a function of the vehicle position according to a method comprising:
 - Storing information which defines a geographic region in a vehicle, the geographic region comprising a predetermined array of cells, each cell having a cell position. (See Figure 1A; Column 10, lines 7-14)
 - Telegraphic messages which are sent from the vehicle to the repeater to then be processed by the center. The information is judged as to whether it is in the correct cell and if so, it is then reported to the center. This is, therefore, associating a plurality of cell parameters, and the cell parameters include a reporting interval and a recording interval which is every few minutes or whenever manual information is entered. (Column 14, lines 55-65)
 - Determining a vehicle position relative to the geographic region, wherein if the vehicle is within the geographic region, the vehicle position is correlated to a vehicle cell. (See Figure 16)
 - Recording vehicle data in accordance with the recording interval of the vehicle cell.
 - Reporting the vehicle data to a vehicle data collection system in accordance with the reporting interval. (See Figure 15)

- Repeating the steps of determining the vehicle position, recording the vehicle data and reporting the vehicle data for a plurality of cycles.

(See Figure 15; Column 17, lines 58-62)

Yoshida fails to disclose updating the information which defines the geographic region, however, Meek et al discloses updating the information which defines the geographic region in a database. (Abstract; Column 4, lines 28-62) It would have been obvious to one having ordinary skill in the art at the time of the invention to include updating the geographic region information in order to modify the invention of Yoshida because, as discussed by Meek et al, geographic region information becomes out-of-date with time as with any map and it would be necessary for the information to be updated in order to be able to provide accurate geographic region information.

- In regard to claim 28, Yoshida discloses the vehicle data comprises at least one datum from the group consisting of a vehicle speed, a vehicle heading, the vehicle position, a vehicle elevation and an ambient temperature (Column 10, line 32, line 60-61; Column 28, lines 48-50).

3. Claims 4, 8, 9, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meek et al (US 6,121,924) as applied to claims 3 and 24 above, and further in view of Fastenrath (US 6,061,625). Yoshida and Meek et al are discussed above and Fastenrath discloses a process for obtaining traffic data. Yoshida and Meek et al fail to disclose updating at least one cell parameter comprising communicating the updated information concerning the at least one cell parameter from the vehicle data

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collection system to the vehicle and storing the updated information in the vehicle data storage system, the cell parameter further comprising a recording priority and the recording priority of a cell is determined as a function of a roadway type located within the cell. Fastenrath discloses a cell parameter having a recording priority and the recording priority is determined based upon the road type. (Column 3, line 48 – Column 4, line 56) Fastenrath also discloses updating at least one cell parameter from a message from the traffic center, which would have to be stored somewhere on the vehicle. (Column 4, lines 30-33) It would have been obvious to one having ordinary skill in the art at the time of the invention to include the updating of the cell parameters and recording priority due to the road type because, as discussed in Fastenrath, each road is different and has different amounts of traffic and speed, therefore it is advantageous to vary the recording priority with the different types of roads. (Column 4, lines 1-56)

4. Claims 6, 7, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over as applied Meek et al (US 6,121,924) to claims 3 and 24 above, and further in view of Froeberg (US 6,233,517). Yoshida, Meek et al and Fastenrath are discussed above and Froeberg discloses a predictive model for an automated vehicle recommendation system.

- In regard to claims 6 and 7, Yoshida, Meek et al and Fastenrath fail to disclose the cell position comprising a latitudinal position, a longitudinal position and an elevational position. Froeberg discusses having a geographic cell identifier which includes latitude, longitude and elevation. (Column 9, lines 22-30) It

would have been obvious to one having ordinary skill in the art at the time of the invention to have each cell position comprising a latitudinal position, a longitudinal position and an elevational position, as taught by Froeberg, in order to have regions or cells distinctly defined as stated by Yoshida. (Column 10, lines 7-15)

- In regard to claim 25, Meek et al, as discussed previously, discloses updating the information which defines the geographic region comprises communicating updated information concerning the geographic region from the vehicle collection system to the vehicle and storing the updated information in the vehicle data storage system. (Abstract; Column 4, lines 28-62) It would have been obvious to one having ordinary skill in the art at the time of the invention to include updating the geographic region information in order to modify the invention of Yoshida because, as discussed by Meek et al, geographic region information becomes out-of-date with time as with any map and it would be necessary for the information to be updated in order to be able to provide accurate geographic region information.

5. Claims 13, 14, 15, 17, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (US 5,699,056) in view of Meek et al (US 6,121,924) and Froeberg (US 6,233,517.)

- In regard to claim 15, Yoshida discloses reporting information from a vehicle to a vehicle data collection system comprising:

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- Storing information comprising a geographic region in a vehicle (discussed above))
- Associating a plurality of cell parameters with each cell (discussed above) including a measurement interval. (Column 11, lines 15-21)
- Determining a vehicle position comprising a latitude and longitude (Column 10, lines 60-61)
- Determining if a vehicle is in a region, and if so, recording vehicle data in accordance with the recording priority and the recording interval of the vehicle cell (Column 14, lines 55-65)
- Reporting the vehicle data to a vehicle data collection system in accordance with the reporting vehicle. (discussed above)
- Repeating the steps of determining the vehicle position, recording the vehicle data and reporting the vehicle data for a plurality of cycles (See Figure 15; Column 1, lines 58-62)
- Determining whether the vehicle is within an array of cells and if so, reporting and recording the vehicle data. (Column 14, lines 55-65)

Yoshida does fail to disclose the geographic region and cells having latitudinal and longitudinal origins and elements and widths. Also, Yoshida fails to disclose converting the vehicle position to a vehicle cell in relation to the array of cells and updating the information which defines the geographic region. Froeberg, also previously discussed, teaches using latitude and longitude to identify cells since it is a well known way. Meek et al discloses updating the information which defines

the geographic region in a database. (Abstract; Column 4, lines 28-62) It would have been obvious to one having ordinary skill in the art at the time of the invention to identify the cells by their latitude and longitude since it is well known and will not change. It also would have been obvious to convert the vehicle position into a vehicle cell in order to be able to quickly decide where the vehicle is in each cell as discussed by Froeberg (Column 9, lines 30-56) and to include updating the geographic region information in order to modify the invention of Yoshida because, as discussed by Meek et al, geographic region information becomes out-of-date with time as with any map and it would be necessary for the information to be updated in order to be able to provide accurate geographic region information.

- In regard to claim 13, Yoshida fails to disclose converting the vehicle position to a vehicle cell, which is performed by the following relationship:

$$X = (Lon_x - Lon_o / C_{LON}) \text{ and}$$

$$Y = (Lat_y - Lat_o / C_{LAT})$$

It would have been obvious to one having ordinary skill in the art at the time of the invention to use these simple equations to create a vehicle cell in order to easily be able to identify where in the geographic region a vehicle is located.

- In regard to claim 14, Yoshida discusses determining whether the vehicle is within the array of cells comprising a geographic region. (Column 14, lines 55-65) Yoshida and Meek et al, however, do not discuss the method of performed to evaluate whether the vehicle cell is within an array of cells. Given the

information provided by Froeberg, it would have been obvious to one having ordinary skill in the art at the time of the invention to use the boundaries of the cells in comparison with the boundaries of the vehicle cell in order to be able to determine if the vehicle is located within the cell.

- In regard to claim 17, Yoshida discusses the vehicle data comprises at least one datum from the group consisting of a vehicle speed, a vehicle heading, the vehicle position, a vehicle elevation and an ambient temperature (Column 10, line 32, line 60-61; Column 28, lines 48-50).
- In regard to claim 18, Yoshida fails to disclose the cell positions comprising an elevational component, but Froeberg does disclose the cell identifier having an elevational component. (Column 9, lines 22-25)
- In regard to claim 21, Yoshida discusses the geographic region comprising a plurality of geographic regions (Column 10, lines 7-21), however, Yoshida fails to disclose being able to selectively enable or disable the method for each geographic region. It would have been obvious to one having ordinary skill in the art at the time of the invention to just turn off repeaters in certain geographic areas where traffic data is not wanted in order to decide what information should be reported to the center.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meek et al (US 6,121,924) and Froeberg (US 6,233,517) as applied to claim 15 above, and further in view of Fastenrath (US 6,061,625). Yoshida, Meek et al and Froeberg fail to disclose updating at least one cell parameter. As discussed above, Fastenrath

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discloses updating a cell parameter based upon information received from the traffic center. (Column 4, lines 30-33) It would have been obvious to one having ordinary skill in the art at the time of the invention to include the updating of the cell parameters as taught by Fastenrath in order to be able to update the parameters of the cell as necessary as information changes and is updated in the traffic center.

7. Claims 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (US 5,699,056) in view of Froeberg (US 6,233,517) and Fastenrath (US 6,061,625.)

- In regard to claim 19, Yoshida discloses reporting information from a vehicle to a vehicle data collection system comprising:
 - Storing information comprising a geographic region in a vehicle (discussed above)
 - Associating a plurality of cell parameters with each cell (discussed above) including a measurement interval. (Column 11, lines 15-21)
 - Determining a vehicle position comprising a latitude and longitude (Column 10, lines 60-61)
 - Determining if a vehicle is in a region, and if so, recording vehicle data in accordance with the recording priority and the recording interval of the vehicle cell (Column 14, lines 55-65)
 - Reporting the vehicle data to a vehicle data collection system in accordance with the reporting vehicle. (discussed above)

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- Repeating the steps of determining the vehicle position, recording the vehicle data and reporting the vehicle data for a plurality of cycles (See Figure 15; Column 1, lines 58-62)
- Determining whether the vehicle is within an array of cells and if so, reporting and recording the vehicle data. (Column 14, lines 55-65)

Yoshida does fail to disclose the geographic region and cells having latitudinal and longitudinal origins and elements and widths. Also, Yoshida fails to disclose converting the vehicle position to a vehicle cell in relation to the array of cells and the recording priority of a cell being determined as a function of a roadway type associated with the cell. Froeberg, also previously discussed, teaches using latitude and longitude to identify cells since it is a well-known way. Fastenrath discloses the recording priority of a cell is determined as a function of the roadway type associated with the cell. (Column 4, lines 1-57) It would have been obvious to one having ordinary skill in the art at the time of the invention to identify the cells by their latitude and longitude since it is well known and will not change. It also would have been obvious to convert the vehicle position into a vehicle cell in order to be able to quickly decide where the vehicle is in each cell as discussed by Froeberg (Column 9, lines 30-56) and to include the recording priority being determined as a function of a roadway type in order to record information as much as needed depending on the type of road the vehicle is on as discussed by Fastenrath.

- Fastenrath discloses the geographic region comprising a plurality of roadways located therein, each roadway having a roadway type identifier associated therewith, and wherein the recording priority of a cell is determined as a function of the roadway type identifier. (Column 3, line 48 – Column 4, line 56)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marie A. Weiskopf whose telephone number is (571) 272-6288. The examiner can normally be reached on Monday-Thursday between 7:00 AM and 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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